Connect America Cost Model Adjustments for Alaska

July 15-17, 2013

alaska COMMUNICATIONS®

CONTENTS

1. Summary of CAF Phase II modeling work for Alaska
2. Considerations when thinking about Alaska
3. Summary of modeling recommendations
4. Next steps

Summary of CAF Phase II Modeling Efforts for Alaska

1. **Alaska Communications has invested significantly in developing appropriate high cost support funding models for Alaska over the last 18+ months. ACS has documented the changes needed to reflect the costs ACS faces in Alaska, including:**
   a. The need to include undersea cable costs; and
   b. Changes to the baseline inputs to reflect unique Alaska circumstances.
2. **We have pursued several approaches including:**
   a. Developing a supplemental model of undersea cable costs;
   b. Building a standalone broadband cost model for Alaska;
   c. Documenting ACS's forward looking costs of broadband materials and deployment for use in the CAM; and
   d. Identifying other aspects of the model that do not reflect conditions in Alaska.
3. **We have made numerous filings with the FCC during this time, some of which have been explicitly supported by USTelecom.**
4. **In response, the FCC has acknowledged the need to adjust the CAM to ensure that it provides sufficient support to ACS and the other Insular Carriers.**

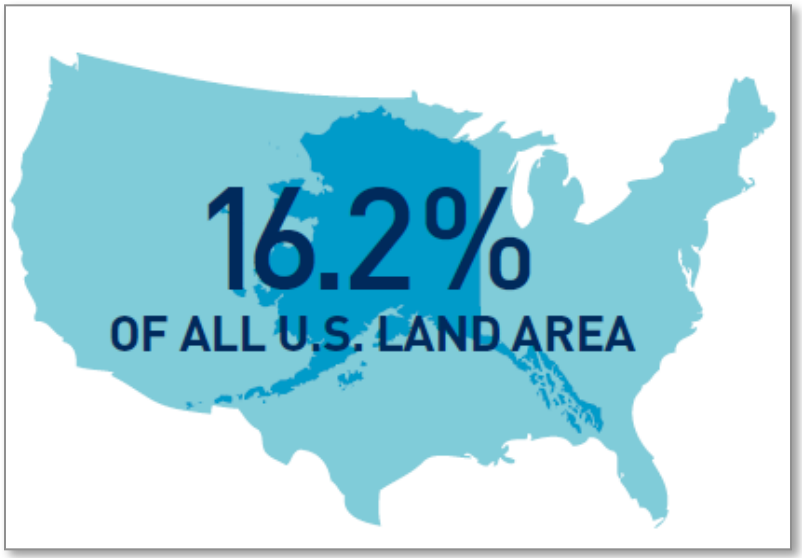
Summary of CAF Phase II Modeling Efforts for Alaska

5. **Over the last two months, we have shared the details of our modeling work with experts from USTelecom.**
   a. We have incorporated many of their suggestions.
   b. USTelecom concurs with the validity of our general approach.
6. **On June 28, we met with the Wireline Competition Bureau to discuss the results of our efforts, and request a series of specific adjustments to the CAM and the Commission's CAF Phase II timeline.**
7. **On July 9, we filed a more detailed *ex parte* letter, quantifying the specific adjustments we are requesting:**
   a. Adjustments to existing CAM inputs to reflect Alaska-specific conditions;
   b. Incorporation of additional costs, such as for undersea cable connectivity to the lower 48 states, into the CAM; and
   c. 10 years, rather than five, to complete the buildout, with associated adjustment to ACS's support level over that period.
8. **The purpose of the presentation today is to share the outcome of our work, and seek your support for incorporating these changes into the CAM and CAF Phase II structure.**

Let us begin by reminding ourselves about the enormous spaces and few people in our State

Geographically Vast

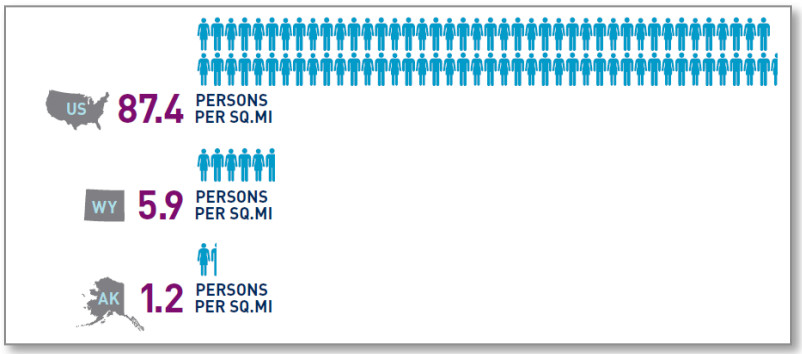
- 570,640 square miles of land represents roughly one-sixth of the total land area of the contiguous United States.
- 6,640 miles of coastline, more than 50% of the entire U.S.
- The state of Alaska is the largest state in the U.S. - more than twice as large as the next largest, Texas.
- Not only is Mt. McKinley the highest mountain in North America, but Alaska has 15 other peaks higher than any in the continental U.S., plus 5,000 glaciers and 3,000 rivers



Source: U.S. Census Bureau, www.census.gov

A Dispersed People

- 2012 population of 731,449, less than 0.25% of the U.S. total population.
- Lowest population density of all states in the U.S. with 1.2 residents per square mile. The next closest is Wyoming with 5.85. The U.S. average is 87.4.



Source: U.S. Census Bureau, www.census.gov

Alaska is a state with a small population of 731,449 spread out over a vast geographic region.

And a reminder that the costs of doing business in Alaska are quite high

Transportation challenges within the State

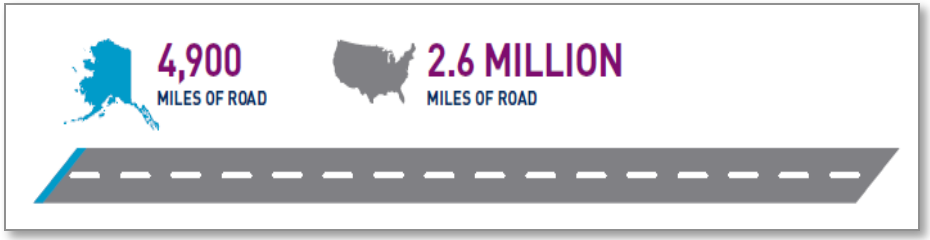
- Juneau is the only state capital not accessible by the road system.
- Alaska has roughly 4,900 miles of paved roads. The U.S. has over 2.6 million.
- 18.3 square miles of land for every lane mile of road. This is less than 1/10 of the density of the state with the next least road density, Wyoming at 1.66 square miles; and less than 1/20 of the U.S. average density of 0.76 square miles for every mile of road.
- There are more than 139 communities in Alaska that are isolated from the public road system and cannot get regular U.S. mail service.

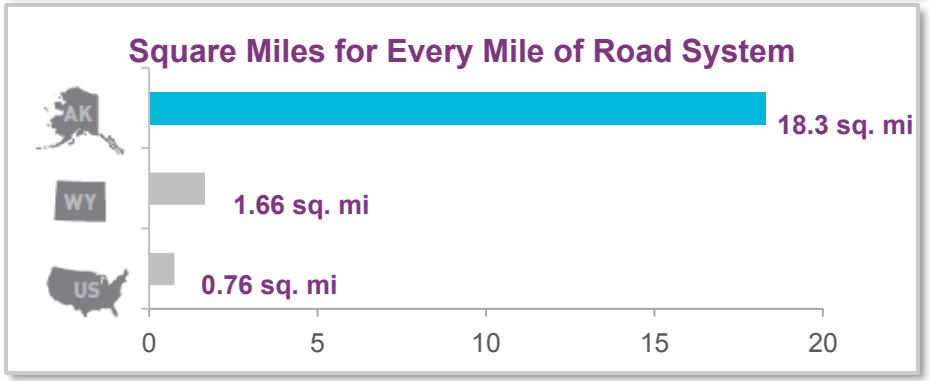
Cost of living is high and varies dramatically

- Energy costs are 68% higher than the national average, 143% higher than the least expensive state, Idaho.
- Energy costs in several rural communities can be 9 times national average.

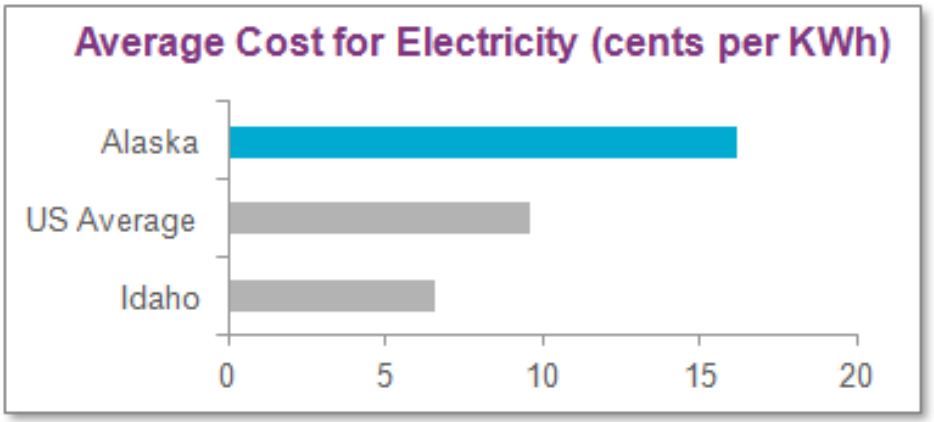
Costs overall are the highest in the Nation

- According to US Army Corps of Engineers data, Alaska communications infrastructure costs are highest in the U.S.
- A 2012 KPMG study found that Anchorage and Honolulu are the highest-cost cities in the nation for business.
- The FCC has acknowledged Alaska's unique challenges.





Source: Department of Transportation & Public Facilities, 2013



Source: U.S. Energy Information Administration

Summary of modeling recommendations

- **The changes ACS proposes reflect the extremely high costs of operating in Alaska:**
  a. A ten-year study by the United States Army Corps of Engineers found that construction costs are 19 percent higher in Alaska than in the lower 48 states, and 55 percent higher than in the lowest cost state.
  b. The U.S. Departments of Agriculture and Defense have recognized the high costs of deploying infrastructure and offering services in Alaska due to the short construction season and high transportation, labor and material costs.
  c. ACS faces labor costs that are 20 percent higher than the US average.
- **ACS proposes three types of adjustments to the CAM:**
  a. Changes to the existing inputs to reflect higher costs of deployment in Alaska;
     - Adjustments to the plant mix table more accurately to reflect the plant mix in Alaska;
     - Use of the cost of deploying facilities in the “hard rock” soil type for all of Alaska;
     - Reclassification of ACS as a “small” company for purposes of the OpEx calculation; and
     - An increase in the Alaska baseline CapEx inputs of 10 percent, to reflect higher costs of broadband equipment and freight to Alaska;
  b. Incorporation of the costs of undersea cable connectivity necessary to connect Alaska to Internet exchange points in the lower 48 states, which are currently absent from the CAM; and
  c. Additional time to complete the CAF Phase II deployment, with appropriate buildout milestones and support for additional operating expenses ACS will incur during the additional commitment years.

Changes to model inputs – additional detail

1. Changes to the Plant Mix table

a. ACS has determined that the nationwide average plant mix figures reflected in the CAM are not accurate for Alaska, for example because we are no longer permitted to construct aerial facilities in large portions of Anchorage.

b. ACS has submitted more accurate, forward-looking plant mix figures that reduce the proportion of aerial plant and make corresponding adjustments to the proportion of underground and buried plant.

c. The CAM uses state-specific plant mix tables for many states; we are asking the same for Alaska.

2. Changes to the soil type

a. The nationwide average cost figures associated with the four soil type classifications used in the CAM do not accurately reflect the costs of building plant in Alaska. To address these challenges, ACS believes that the model should use the cost of building in "hard rock" throughout Alaska.

- Permafrost is a significant factor in and around ACS service areas near Fairbanks.
- In ACS's southeastern areas near Juneau, the company faces a large proportion of hard rock.
- In Anchorage and surrounding areas, the terrain is underlain with a marshy "goo," which provides inadequate physical support for telecommunications plant. As a result ACS must dig down to bedrock, some 5-15 feet deep, and build a foundation back up from that level.

b. Deployment in any of these conditions is far more expensive than the CAM reflects for Alaska. Even the CAM's cost figures for "hard rock" substantially understate ACS's actual forward-looking costs.

Changes to model inputs – additional detail

3. Reclassification of ACS as a "small" company

a. The model currently classifies ACS as a "medium" company for purposes of determining OpEx, because it falls within the range of 100,000 to 1 million lines.

b. At 120,000 lines, ACS today falls at the very low end of that range and, like most carriers, foresees continuing line losses over the CAF Phase II commitment period.

c. At current rates of line loss, ACS projects that it will fall below the 100,000 line threshold roughly two years after the CAF Phase II commitment period starts.

d. Already, ACS shares many characteristics of carriers that the CAM classifies as "small."

- ACS serves a largely rural, low-density challenging service territory in a single state;
- It is geographically isolated with limited opportunities to expand, being entirely surrounded by Canada and open ocean; and
- It cannot achieve the economies of scale available to larger carriers.

e. As reflected in our recent Virtual Workshop filings, ACS has substantial questions about the statistical analysis that the model incorporates to determine the "medium" company OpEx factor.

Changes to model inputs – additional detail

4. Increasing Alaska baseline CapEx inputs by 10 percent

a. ACS faces higher costs of purchasing broadband equipment because of its small size and limited purchasing power. This reflects the geographic isolation of Alaska and geographic constraints on growth.

b. ACS faces high freight costs to transport equipment to Alaska, and then within the state to various deployment sites. All materials must be barged from Seattle to Anchorage, and then distributed from there to points within the state.

c. U.S. Army Corps of Engineers, U.S. Department of Defense, and U.S. Department of Agriculture studies confirm these extraordinary costs of infrastructure deployment in Alaska.

d. These costs are unavoidably associated with providing broadband service in Alaska; large, nationwide carriers have not succeeded in past attempts to integrate insular carriers into their operations.

e. A 10 percent upward adjustment in baseline CapEx, implemented through the regional adjustment factor, is appropriate to capture these costs.

Incorporation of submarine cable costs

5. Adding undersea cable costs necessary to connect Alaska to Internet exchange points in the lower 48 states

a. Unique among insular areas, ACS had to build and purchase its own submarine cables to connect Alaska to Internet exchange points more than a thousand miles away, in the lower 48 states.

b. These costs are not currently captured in the model, and must be included to accurately reflect the forward-looking costs of providing broadband in Alaska.

c. ACS has created its own model of undersea cable transport costs, filed in 2012, which should guide the Commission's modeling of undersea cable costs. ACS has worked with CostQuest to support its modeling of undersea cable costs in the CAM.

d. ACS believes that 70 percent of undersea cable costs should be allocated to CAF Phase II broadband and should be spread across ACS customer locations only, not the entire state of Alaska.

1. The costs (CapEx and OpEx) of undersea cables are different from terrestrial middle mile networks, and ACS believes that the CAM should reflect these differences.
2. We serve approximately 70% of the locations in Alaska, of which only very small percentage of these locations are business locations, and of these a significant majority of business locations are small businesses.
3. We expect the growth rate of consumer broadband traffic to far outpace all others, as service availability sharply expands under CAF Phase II; broadband speeds increase over time; and consumer data demands increase as they adopt new, data-intensive services in greater numbers.

e. The cost factor used in the CAM should reflect the forward looking costs ACS faces in operating and maintaining its undersea cables.

Deployment Timeframe

1. **ACS seeks additional time, up to ten years to complete the CAF Phase II buildout, with support continuing through that period.**

   a. Currently, the FCC has provided a five-year commitment period, during which carriers must meet the buildout obligations associated with CAF Phase II support. We are requesting a 10-year period to meet these obligations.

   b. ACS cannot complete the required buildout within five years. ACS faces short construction season, in some locations only 3-4 months, in which it can pursue large-scale deployment projects.

   c. Alaska has a limited supply of engineers and contractors that have experience with telecommunications plant deployment in Alaska.

   d. In attracting contractors from the Lower 48, ACS anticipates substantial shortages of workers, equipment, fiber optic cable, and other broadband plant materials after the FCC finalizes CAF Phase II funding as other carriers ramp up their investments.

   e. Because ACS's capital spending will follow a more lengthy trajectory, it will face additional operating expenses over the longer buildout period.

Deployment Timeframe (continued)

2. **If the FCC grants 10 years for ACS to complete its CAF Phase II buildout, ACS would propose to receive an annual support amount for ten years computed as follows:**

   a. ACS would receive, in the aggregate, a support amount equivalent to:

      - For the first five years, the full CAF Phase II support amount computed by the CAM, providing ACS with the same five years of capital recovery that other CAF Phase II participants receive; and
      - For the second five years, a portion of the CAF Phase II support amount reflecting the ratio of OpEx to total cost estimated by the CAM.

   b. ACS's annual support figure for the ten-year period would be computed based on the net present value of these payments, using the CAM's cost of money, levelized over the ten years.

3. **ACS has proposed build-out milestones for 4 Mbps/1 Mbps broadband over the 10-year period:**

   a. 40 percent by the end of year 4;

   b. 80 percent by the end of year 8; and

   c. 100 percent by the end of year 10.

Incorporating these recommended changes support policy goals of the Commission

- We have identified a set of changes to the CAM modeling parameters for Alaska that give the Commission the opportunity to achieve a truly historic policy victory, transforming Alaska from among the most underserved states in the nation into a vibrant leader in broadband availability, penetration, and usage.
- These changes, if accepted, could bring broadband meeting CAF Phase II standards to substantially all of ACS's customers located in road-system areas.
- Such support will dramatically reshape the economic, educational, cultural, and social opportunities for hundreds of thousands of Alaskans, including large portions of its rural and Native Alaskan population.
- The changes ACS proposes bring CAM support more closely in line with what is sufficient to reflect the costs of delivering CAF Phase II broadband in Alaska.
- Doing so will also reduce the burden on the Remote Areas Fund in Alaska.
- Implementing these changes will bring the Commission closest to achieving its stated policy goal of universal broadband availability.

Conclusion

- We have submitted documentation of our proposed adjustments in the appropriate dockets.
- We ask for your support in having CostQuest incorporate those changes into the CAM.
- ACS would welcome the opportunity to work with CostQuest to model our submarine cable costs and incorporate those costs into the CAM.


THANK YOU